

WHAT IS CLAIMED IS:

1. An enzyme composition comprising:
a mutant thermostable DNA polymerase; and
a mutant reverse transcriptase.
2. The enzyme composition according to Claim 1, wherein said mutant DNA polymerase is a mutant Taq polymerase.
3. The enzyme composition according to Claim 2, wherein said mutant Taq polymerase is a deletion mutant.
4. The enzyme composition according to Claim 3, wherein said deletion mutant is an N-terminal deletion mutant.
5. The enzyme composition according to Claim 1, wherein said mutant reverse transcriptase is a mutant of moloney murine leukemia virus reverse transcriptase.
6. The enzyme composition according to Claim 5, wherein said mutant is a point mutation mutant.
7. The enzyme composition according to Claim 6, wherein said mutant exhibits substantially the same RT activity as wild type moloney murine leukemia virus reverse transcriptase.
8. The enzyme composition according to Claim 1, wherein said enzyme composition further comprises an antibody specific for said mutant thermostable DNA polymerase.
9. An enzyme composition comprising:

B, F & F Ref: CLON016CON

Clontech Ref:

F:\DOCUMENT\CLON\016CON\PATENT APPLICATION.DOC 21-

003336 09404
T03T03 942E60

an N-terminal deletion mutant of Taq polymerase;
a point mutation mutant of moloney murine leukemia virus reverse transcriptase;
and
an antibody specific for said N-terminal deletion mutant of Taq polymerase.

10. The enzyme composition according to Claim 9, wherein the ratio of said mutant Taq polymerase mutant to said reverse transcriptase mutant ranges from about 0.8 to 6.5.

11. The enzyme composition according to Claim 9, wherein the amount of said antibody in said composition ranges from about 0.9 to 1.1 μ g.

12. A kit for use in a one step nucleic acid amplification procedure, said kit comprising:

- (a) a mutant thermostable DNA polymerase;
- (b) a mutant reverse transcriptase; and
- (b) at least one of the following components:
 - (i) dNTPs; and
 - (ii) buffer.

13. The kit according to Claim 12, wherein said kit further includes a thermostabilizing agent.

14. The kit according to Claim 12, wherein said kit further includes a glycine based osmolyte.

15. The kit according to Claim 12, wherein said kit further includes at least one nucleic acid.

16. The kit according to Claim 12, wherein said kit further includes an RNase inhibitor.

17. A method for producing an amplified amount of DNA from a template RNA, said method comprising:

- (a) preparing an aqueous reaction mixture comprising:
 - (i) said RNA template;
 - (ii) a mutant thermostable DNA polymerase;
 - (iii) a mutant reverse transcriptase;
 - (iv) dNTPs
 - (v) buffer reagents; and
 - (vi) at least one nucleic acid primer;
 - (b) subjecting said reaction mixture at a first set of reverse transcription reaction conditions suitable for reverse transcription of said RNA template into cDNA; and
 - (c) subjecting said reaction mixture at a second set of PCR conditions suitable for amplification of said cDNA;
- whereby an amplified amount of DNA is produced from a template RNA.

18. The method according to Claim 17, wherein said reaction mixture further includes an antibody specific for said mutant thermostable polymerase.

19. The method according to Claim 17, wherein said reaction mixture further comprises a glycine based osmolyte.

20. The method according to Claim 17, wherein said reaction mixture further comprises a thermostabilizing reagent.

21. The method according to Claim 17, wherein mutant thermostable polymerase is an N-terminal deletion mutant of Taq polymerase.

22. The method according to Claim 17, wherein said mutant reverse transcriptase is a point mutation mutant of moloney murine leukemia virus reverse transcriptase.

093296.09.10
FOIA b7 - d, e, f, g